

## CLAIMS

What is claimed is:

- 1           1.     A method comprising:  
2           capturing an image;  
3           determining if the image has changed, and if the image has changed,  
4           sending the image to a server; and  
5           if the image has not changed with a period, sending a heartbeat to indicate  
6           continued functionality.
- 1           2.     The method of claim 1, wherein determining if the image has  
2           changed comprises detecting motion in the image.
- 1           3.     The method of claim 1, wherein sending a heartbeat is smaller, and  
2           thus uses less bandwidth than sending an image.
- 1           4.     The method of claim 3, wherein the heartbeat comprises a  
2           compressed version of the unchanged image, including a time stamp.
- 1           5.     The method of claim 3, wherein the heartbeat comprises a time  
2           stamp.
- 1           6.     The method of claim 3, wherein the heartbeat is a single bit.
- 1           7.     An apparatus comprising:  
2           a camera for obtaining images;  
3           an interface to send a new image if the new image is different from the old  
4           image; and  
5           a heartbeat logic to send a heartbeat signal, if the new image has not been  
6           different from the old image in a period of time.

1           8.     The apparatus of claim 7, further comprising:  
2           a motion detector to compare the new image with the old image, and  
3     determine if the new image is different from the old image.

1           9.     The apparatus of claim 7, wherein the camera periodically obtains a  
2     new image.

1           10.    The apparatus of claim 7, further comprising a timer, the timer  
2     reset every time the interface send a new image, and the timer indicating to the  
3     heartbeat logic to send the heartbeat signal, if the timer reaches a value.

1           11.    The apparatus of claim 1, wherein sending a heartbeat is smaller,  
2     and thus uses less bandwidth than sending an image.

1           12.    The apparatus of claim 11, wherein the heartbeat comprises a  
2     compressed version of the unchanged image, including a time stamp.

1           13.    The apparatus of claim 11, wherein the heartbeat comprises a time  
2     stamp.

1           14.    A method of obtaining images and a status of a camera, the method  
2     comprising:  
3           sending a new image, if the new image is different from an old image; and  
4           sending a heartbeat, if the new image is not different from the old image.

1           15.    The method of claim 14, wherein the new image is send  
2     periodically at a first rate, and the heartbeat is sent periodically at a second rate.

1           16.    The method of claim 15, wherein the heartbeat is sent only if a

2 series of new images were the same as the old images.

1 17. The method of claim 14, further comprising:  
2 using a first timer to periodically send the new images; and  
3 using a second timer, to send the heartbeat, if no new images were sent  
4 within a period.

1 18. The method of claim 17, further comprising resetting the second  
2 timer when the new image is sent.

1 19. A system of providing images to a user, the system comprising:  
2 a plurality of cameras for periodically obtaining images;  
3 a camera control system to collect images from the plurality of cameras,  
4 the camera control system including:  
5 a comparison logic to determine whether a new image  
6 obtained by a camera is different from an old image obtained by  
7 the camera;  
8 a heartbeat logic to generate a heartbeat signal, if the new  
9 image has not been different from the old image in a period of time;  
10 and  
11 an interface to send the new images that are different from  
12 old images through a network;  
13 a server to receive the images from the camera control system and server  
14 them to the user.

1 20. The system of claim 19, wherein the interface further sends a  
2 heartbeat for those cameras that have not had an image sent in a previous set of  
3 cycles.